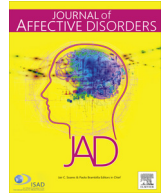




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## Research paper

## Self-help strategies for sub-threshold anxiety: A Delphi consensus study to find messages suitable for population-wide promotion

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## ABSTRACT

**Background:** Many self-help strategies have been recommended for anxiety, but it is not clear which strategies are most effective and could be encouraged as part of an early intervention approach. This study used the Delphi expert consensus method to identify which strategies for mild (sub-threshold) anxiety are thought to be helpful and feasible to implement for individuals without professional assistance.

**Methods:** Participants were an international sample of 51 clinicians/researchers and 32 consumer advocates with expertise in anxiety. The scientific and lay literature was systematically searched for strategies claimed to be effective for anxiety. Participants rated the likely helpfulness of each strategy in reducing sub-threshold anxiety (related to generalised anxiety, social anxiety, or non-specific anxiety symptoms) and the feasibility of implementation in an iterative process across three questionnaire rounds.

**Results:** 66 out of 324 candidate strategies were endorsed by at least 80% of both consumers and clinicians/researchers as likely to be helpful, and 18 were judged as feasible to carry out. Endorsed strategies were most frequently related to cognitive strategies and other psychological methods, interpersonal strategies, reducing physical tension, and lifestyle strategies. Few strategies were endorsed that were related to diet, supplements, or complementary medicine.

**Limitations:** Findings may not apply to other forms of mild anxiety related to panic attacks or specific phobias.

**Conclusions:** This study contributes to the evidence-base on strategies that individuals can use to improve mild anxiety symptoms. Research is now required to evaluate whether promoting the strategies can help reduce the overall community burden from anxiety disorders.

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## 1. Introduction

Due to the dimensional nature of mental health problems, it is increasingly recognised that individuals with 'sub-threshold' mental health disorders can still have a clinically-relevant problem, despite not qualifying for a mental disorder diagnosis (Helmchen and Linden, 2000). Anxiety disorders are the most common category of mental disorder (Slade et al., 2009), and milder (sub-threshold) forms of anxiety are also highly prevalent and cause significant life interference (Carter et al., 2001; Fehm et al., 2008; Haller et al., 2014). For example, one study found that 2.1% of Germans experienced a sub-threshold form of Generalised Anxiety Disorder (GAD) in the past year, compared to 1.5% who experienced 'full-blown' GAD (Carter et al., 2001). Psychosocial

functioning in individuals with sub-threshold GAD has been shown to be much lower than in 'healthy' individuals and comparable in impairment with other anxiety disorders (Hoyer et al., 2002). As well as being common and impairing, sub-threshold anxiety also increases the risk of developing a full-blown anxiety disorder more than three-fold (Karsten et al., 2011a). Early intervention to help individuals experiencing sub-threshold anxiety could avert the progression to full-threshold anxiety disorders and reduce the overall community burden from anxiety disorders.

Whilst effective treatments for anxiety disorders exist, the majority of individuals with an anxiety disorder have not sought treatment for their mental health problem in the previous 12 months (Slade et al., 2009). Hence, there is already a large group of individuals with an unmet need for treatment, and encouraging individuals with sub-threshold anxiety to seek treatment would place further burdens on stretched treatment services. One alternative proposal is to educate the public about self-help strategies that are likely to be effective for anxiety symptoms (Jorm and Griffiths, 2006). 'Self-help strategies' are

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the broad array of actions that a person can take on his or her own to deal with mental health problems without needing professional guidance. Many individuals prefer to deal with mental health problems on their own (van Beljouw et al., 2010; Walters et al., 2008; Wells et al., 1994), particularly when problems are at the milder end of the spectrum (Jorm et al., 2004). However, this self-management is often less than optimal. For example, in a large Australian community survey the following strategies were most commonly used to deal with high levels of anxiety and depression symptoms: alcohol to relax, pain relievers, physical activity, help from family and friends, holidays, and time off work (Jorm et al., 2000). Some of these strategies are likely to be helpful, such as physical activity (Wipfli et al., 2008), but some common strategies may worsen symptoms in the long-term (e.g. substance use). In a similar way to health promotion campaigns that encourage action to reduce risk of heart disease and cancer, promoting evidence-based self-help strategies could help individuals reduce their anxiety symptoms and risk of developing a full anxiety disorder. Encouraging use of effective self-help strategies for mild anxiety symptoms would also save healthcare resources for individuals with more severe problems.

For promotion of self-help strategies to be effective, the strategies need to be actions that are likely to be helpful for the majority of individuals in the community. However, determining which actions are effective is difficult because many self-help strategies are not amenable to evaluation in controlled trials. This is because many strategies may not be feasible or ethical to evaluate under controlled conditions (e.g. time off work, seeking support from friends, sex to relax, going on holiday). Although the efficacy of some self-help approaches has been evaluated, including exercise (Wipfli et al., 2008) and online 'self-help' CBT treatments (Adelman et al., 2014), these evaluations are often under conditions that do not reflect how the self-help is used outside of a research study (i.e. without professional involvement). In situations where there is limited evidence from controlled trials, the Delphi method is an appropriate alternative to aid decision-making, based on the opinions of experts. The Delphi method is a widely used technique in mental health research (Jorm, 2015) and has previously been used to identify self-help strategies likely to be helpful for sub-threshold depression (Morgan and Jorm, 2009). This research produced a set of self-help strategies endorsed as likely to be helpful and feasible to implement by individuals in the community. These strategies have been developed into a brief email-based intervention, which a randomised controlled trial showed was effective in reducing sub-threshold depressive symptoms and preventing major depression (Morgan et al., 2012). These results indicate that it is possible to improve self-help techniques used by individuals with depressive symptoms, and that this has a beneficial effect on mental health.

Given the effectiveness of promoting effective self-help actions for depression, a similar approach for anxiety may also have merit. Therefore, the current research aimed to conduct a Delphi study to investigate which self-help actions professional and consumer experts in anxiety agree are likely to be both helpful and feasible to implement by members of the community with mild (sub-threshold) anxiety. These strategies could then be promoted to members of the public in order to reduce the community burden from anxiety problems.

## 2. Methods

### 2.1. The Delphi method

The Delphi method is an iterative process in which recruited experts make private ratings and are given controlled feedback about the ratings of the other experts, including a statistical summary of

results. As the experts do not meet, it avoids problems inherent in face-to-face interaction, such as group conflict and individual dominance. Furthermore, controlled feedback and anonymity in responding is thought to increase the reliability of the consensus opinion, as experts are able to revise their ratings without having to publicly admit that they have done so (Gupta and Clarke, 1996). In this study, a list of self-help strategies for anxiety was derived from a systematic search of the lay and scientific literature and presented to a panel of experts in three sequential rounds. Participants were also given the opportunity to suggest new strategies for rating in a later round. A summary of group ratings was fed back to the panel members after the first two rounds. For strategies almost meeting consensus, panel members were given the opportunity to maintain or change their ratings in light of the group feedback. At the end of this process, self-help strategies with substantial agreement about helpfulness were retained, and strategies with low or conflicting agreement were discarded.

### 2.2. Panel formation

Experts in anxiety were approached from Australia, New Zealand, Canada, the USA, the UK, and Ireland. Clinicians and researchers with anxiety expertise formed one panel, while consumers who had experience of anxiety and were in an advocacy role formed a second panel. Including consumers with lived experience recognises the valid expertise they contribute to evaluating potential self-help methods. Researchers needed to be well-established and to have a predominant focus on generalised anxiety, social anxiety, or anxiety in general. Researchers were approached to participate if they had extensive publications in anxiety, were authors of clinical practice guidelines for the management of anxiety disorders, were on editorial boards of leading anxiety journals, were authors of key papers on the management of generalised anxiety disorder or social anxiety disorder, or worked in a research centre specialising in anxiety disorders. Clinicians needed to be registered/licenced and well-established in treating clients with generalised anxiety or social anxiety. Clinical experts were recruited by advertising the study to professional organisations and by directly approaching clinicians who were listed on directories of psychologist/therapist websites as having expertise in treating anxiety. In total 365 professionals were invited to participate in the study. All participants provided a brief description justifying their anxiety expertise as a clinician/researcher to the research team, and eligibility was assessed on a case-by-case basis. The aim was to recruit panel members with a rich understanding of anxiety, rather than attempt socio-demographic representativeness.

To be eligible as a member of the consumer expert panel, individuals needed to report a history of experiencing anxiety (e.g., generalised anxiety, social anxiety), report that they were currently well, and be in an advocacy or publicly visible role so that their ratings were based on the experience of others with anxiety, as well their own. This was defined as someone who has tried to improve the lives of those affected by anxiety by, for example, providing feedback and input into mental health services and programs through membership of a reference group, educating the public regarding anxiety, running a website for the benefit of those with anxiety, or acting as an advocate for those affected by anxiety. Consumer experts were recruited by approaching mental health organisations with consumer representation and asking them to distribute information about the study to potential participants.

### 2.3. Ethics, consent and permissions

Participants read an information sheet about the study, gave online informed consent to participate, and provided a brief

description justifying their anxiety expertise as a clinician/researcher or consumer. The study received ethics approval from La Trobe University's Human Ethics Committee (14-013).

#### 2.4. Literature search for self-help strategies for anxiety

The input to the Delphi study was a questionnaire based on claims made in the literature about effective self-help for anxiety. The aim was to include the full range of possible self-help strategies, without any initial evaluation of supporting evidence or feasibility. Due to the diversity of anxiety disorders, there is no consensus on a definition of sub-threshold anxiety (as compared with depression) (Karsten et al., 2011b). For the purposes of this study, sub-threshold anxiety was defined as related to generalised anxiety (worry about a number of issues that is excessive and hard to control), social anxiety (anxiety about being negatively evaluated in social situations), or anxiety of a non-specific nature. Strategies were identified by systematically searching websites, books, and journal articles for any self-help method the author recommended for reducing anxiety, or which had been reported to be helpful.

Websites listing self-help strategies were identified by searching Google.com, Google.co.uk and Google.com.au using the search phrase 'help for anxiety', with the first 20 results examined from each search engine. The first 10 of the 'best anxiety resources websites' as given by the website [www.goodtherapy.org](http://www.goodtherapy.org) were also investigated, as well as the first 30 answers to the entry 'anxiety' in the Yahoo Answers website. A search for relevant books was undertaken with Google.com, Google.co.uk and Google.com.au using the terms 'best selling books on anxiety'. The first five results were examined in each search engine (one being a listing of such books on Amazon). Two other major bookseller websites in Australia and the USA were also searched. Journal articles were sought from PsycINFO and MEDLINE using *anx\** combined with *self-help* (and variations such as *self management*) and *strategy* (and variations such as *techniques* and *coping*). Google Scholar was also searched using the phrases *self-help methods anxiety*, *coping strategies worry* and *coping strategies social anxiety*, with the first 40 pages of results examined. Reference lists of relevant articles were checked and citation searches for the relevant articles were also conducted. There are no set guidelines on the number of search engine results to search for input into Delphi studies. Rather, it is recommended to take a systematic approach with the aim of including items that cover the complete domain of possibilities in the area, and to describe the search in sufficient detail to allow replication (Jorm, 2015). The number of resources searched was thought to be sufficient to capture the wide variety of strategies, whilst remaining manageable within the resources dedicated to the project.

Strategies were not collected if they were specifically for panic, agoraphobia, trauma or stressor-related problems, phobias about specific objects, or obsessions/compulsions, or for very specific contexts (e.g., anxiety about cancer or medical procedures). This was necessary to reduce the number of potential self-help strategies to a manageable level, whilst excluding forms of anxiety that are more severe and appropriate for clinical intervention, or have limited generalisability because they are only elicited by specific stimuli (including a phobic object or specific bodily symptoms). Strategies requiring a professional or recommended only under the supervision of a health professional were excluded, as these are not appropriate for self-help. Strategies involving illegal activity or harm to others were also excluded, as these would be inappropriate to promote to the public. Strategies advocated for use by children or adolescents were also not collected.

#### 2.5. Questionnaire development and administration

The literature search found 2003 self-help strategies for anxiety from 71 sources. Some strategies were expressed differently but covered the same idea, or were minor variations upon the same theme. To identify duplicate strategies and to distil the items into the most parsimonious number of strategies, one member of the research team (PC) initially classified all the strategies into 72 categories (e.g. breathing technique, social support, nutrition). A second member of the research team (AM) derived a list of 95 categories by independently classifying a random sample of 400 strategies. A final list of 79 categories was refined through discussion. Finally, to facilitate the identification of redundancies, self-help strategies were sorted into the final list of 79 categories and analysed for the presence of independent ideas by PC, reducing the number of strategies to 371. All authors then collaboratively discussed and evaluated each strategy against the criteria of being clear statements of action that a person could engage in without professional assistance. Some re-phrasing was necessary at times to clarify meaning, however every effort was made to remain as faithful as possible to the original source. This process reduced the list to 311 different self-help strategies. These strategies were organised into a questionnaire with 13 sections that encompassed similar types of categories of strategies (see Table 1).

Participants were asked to rate the likely helpfulness of the strategies for mild (sub-threshold) anxiety according to a five point scale: (1) Very likely to be helpful; (2) Likely to be helpful; (3) Neither helpful nor harmful; (4) Likely to be harmful; (5) Not sure. In accordance with our definition of sub-threshold anxiety above, participants were instructed to rate the strategies for managing anxiety that was either non-specific in nature, generalised anxiety, or social anxiety; and not for panic, agoraphobia, trauma or stressor-related problems, phobias about specific objects, obsessions or compulsions, or severe anxiety of any type. Participants were instructed that ratings could be based on whatever sources of knowledge were available to them, including research evidence, theoretical understanding of anxiety, clinical experience in treating anxiety and personal experience of anxiety. Research evidence was provided for strategies that panel members may have been less familiar with (herbal remedies, dietary supplements and complementary/alternative methods), in the form of a systematic review. The review summarised the evidence from randomised controlled trials of strategies for non-clinical levels of anxiety as well as anxiety disorders. Panel members could consult this review when rating each strategy, if they wished (see Additional File 1 for a copy of the review).

As part of the Round 2 questionnaire, panel members were asked to rate the *feasibility* of carrying out the self-help strategies (all endorsed strategies, plus strategies needing re-rating, and newly suggested strategies). Feasibility was defined as how practical it would be for the average person with mild anxiety to use or apply them in terms of factors such as effort, time, and cost. Strategies were rated on a five-point scale: (1) Very easy to carry out; (2) Easy to carry out; (3) Neither easy nor hard to carry out; (4) Difficult to carry out; (5) Not sure. Up to three reminder emails were sent to non-responders after each questionnaire round. Participants who completed all questionnaire rounds were offered an AUD \$50 gift voucher.

#### 2.6. Statistical analysis

The analytic strategy was consistent with similar Delphi studies (Kingston et al., 2011; Langlands et al., 2008). The questionnaire responses were analysed by calculating group percentages of ratings separately for the consumer and clinician/researcher panels. In Round 1, consensus of helpfulness was defined as 80% or more



**Table 1**  
Round 1 questionnaire sections and number of strategies.

| Section                        | Number of strategies |
|--------------------------------|----------------------|
| Cognitive change               | 26                   |
| Other psychological techniques | 46                   |
| Interpersonal strategies       | 20                   |
| Reducing physical tension      | 36                   |
| Substances                     | 12                   |
| Behavioural strategies         | 15                   |
| Analytic strategies            | 8                    |
| Ways of being and spirituality | 14                   |
| Coping techniques              | 10                   |
| Lifestyle and other strategies | 23                   |
| Dietary habits                 | 30                   |
| Dietary supplements            | 25                   |
| Complementary strategies       | 46                   |
| Total                          | 311                  |

of both panels endorsing a strategy as either *Very likely to be helpful* or *Likely to be helpful*. Strategies categorised as 'almost endorsed' were those in which either (a) very likely or likely helpful ratings were given by 80% or more of one panel but 70–79% of the other panel, or (b) very likely or likely ratings were given by 70–79% of both panels. Any strategy not falling into any of the above categories was rejected. Strategies categorised as 'almost endorsed' were submitted for re-rating by all participants in another questionnaire round. Endorsed strategies were considered 'feasible' if they were rated as 'very easy' or 'easy' to carry out by at least 60% of both expert panels.

Correlations between consumer and clinician/researcher ratings of helpfulness and feasibility (percent endorsed) were calculated using the Pearson correlation coefficient. To determine whether dropouts introduced a systematic bias to Round 2 ratings of helpfulness, a  $2 \times 2$  contingency table analysis (Fisher's exact test) was conducted comparing Round 1 endorsement of strategies between dropouts and completers. To analyse whether changes in endorsement between questionnaire rounds were due to random fluctuations in response, or reflected a systematic change due to group feedback, McNemar's chi-square test was conducted comparing completers' endorsement or non-endorsement of strategies re-rated in Round 2 and Round 3. All statistical tests were two-tailed, and significance was declared at the .05 level.

### 3. Results

#### 3.1. Panel members

Eighty-three expert panel members participated in the study (51 consumers, 32 clinicians/researchers). Overall, 58 (69.9%) were female (66.7% consumers, 75.0% clinicians/researchers). The majority of consumer experts (92%) were from Australia's beyond-blue's blueVoices reference group, and none were from outside Australia. In the clinician/researcher group, 43.8% ( $n=14$ ) indicated having clinical expertise, 18.8% ( $n=6$ ) indicated having research expertise, and 37.5% ( $n=12$ ) reported both types of expertise. Of the 26 clinicians, 24 were psychologists, and there was one psychiatrist and one clinical social worker. Clinicians/researchers were from Australia ( $n=13$ ), United States ( $n=9$ ), Canada ( $n=6$ ), United Kingdom ( $n=3$ ), and Ireland ( $n=1$ ).

Responses to the Round 2 questionnaire were received from 68 participants (82% overall; 80% consumers, 84% clinicians/researchers). The Round 3 questionnaire was completed by 64 participants (77% overall; 78% consumers; 75% clinicians/researchers).

#### 3.2. Helpfulness of strategies

The two panels of experts endorsed 66 out of 324 strategies (20.4%) as likely to be helpful for mild anxiety across three questionnaire rounds (see Table 2). Fig. 1 gives an overview of the number of strategies that were endorsed, rejected and re-rated in each round. Endorsed strategies fit most frequently into the category of cognitive change (11 strategies), followed by other psychological methods (9 strategies), interpersonal strategies (8 strategies), reducing physical tension (7 strategies), and lifestyle strategies (7 strategies). No strategies were endorsed from dietary supplements, and only one complementary strategy was endorsed (Yoga), despite this category nearly comprising the largest number of strategies. Consumers endorsed more strategies than clinicians/researchers (106 versus 83) and there were some large differences in endorsement of helpfulness between the two panels (see Table 3). Despite these differences, consumer and clinician/researcher ratings of helpfulness were highly correlated,  $r=0.81$ ,  $p<0.001$ . The final ratings of helpfulness for each panel are available in Additional File 2.

Eight strategies were rated as likely to be harmful by 50% or more of each panel. These were: *Avoid being with people in general*; *Use alcohol*; *Wish the situation would go away or somehow be finished*; *Try not to think about what is causing them to be anxious*; *Avoid challenging their anxious thoughts, because those thoughts are more powerful than their efforts to challenge them*; *Replace anxious thoughts with another unpleasant thought or a minor problem*; *Try to ignore what is causing them to feel anxious (e.g., the situation, anxious thoughts)*; *Pretend to be positive in every aspect of their life, fake positivity for at least a month*.

There was a significant difference in endorsement between dropouts and completers for only 2 out of 311 strategies, which is no more than expected by chance. The analysis of changes in ratings for re-rated strategies found one strategy out of 31 endorsed by a significantly different proportion of consumers, which is no more than expected by chance. There was no change in endorsement by clinicians/researchers.

#### 3.3. Feasibility of strategies

Panel members generally gave lower ratings to feasibility than helpfulness, with only 2 of the 66 endorsed strategies considered *very easy* or *easy* to carry out by 80% or more of both panels of experts. Reducing the cut-off to 60% of both panels resulted in 18 of the 66 strategies (27.3%) considered *easy* or *very easy* to carry out. Ratings of feasibility between the two panels were strongly correlated,  $r=0.84$ ,  $p<0.001$ . Refer to Table 2 for the strategies considered most feasible and Additional File 2 for the full data on feasibility.

### 4. Discussion

This study aimed to determine through expert consensus which self-help strategies for mild anxiety are thought to be helpful and feasible to implement, and would therefore be good candidates for promotion to the public. Sixty-six strategies were endorsed as likely to be helpful by the study's panel of expert clinicians, researchers, and consumers. Of these, eighteen were endorsed by a majority of experts as *easy* or *very easy* to carry out. The remaining endorsed strategies were not necessarily difficult to carry out, but may depend more on the individual and their particular circumstances. Endorsed strategies recommended learning about and understanding anxiety, some forms of facing anxiety (exposure), changing thinking patterns, problem solving, acceptance-based strategies, mindfulness techniques, techniques to

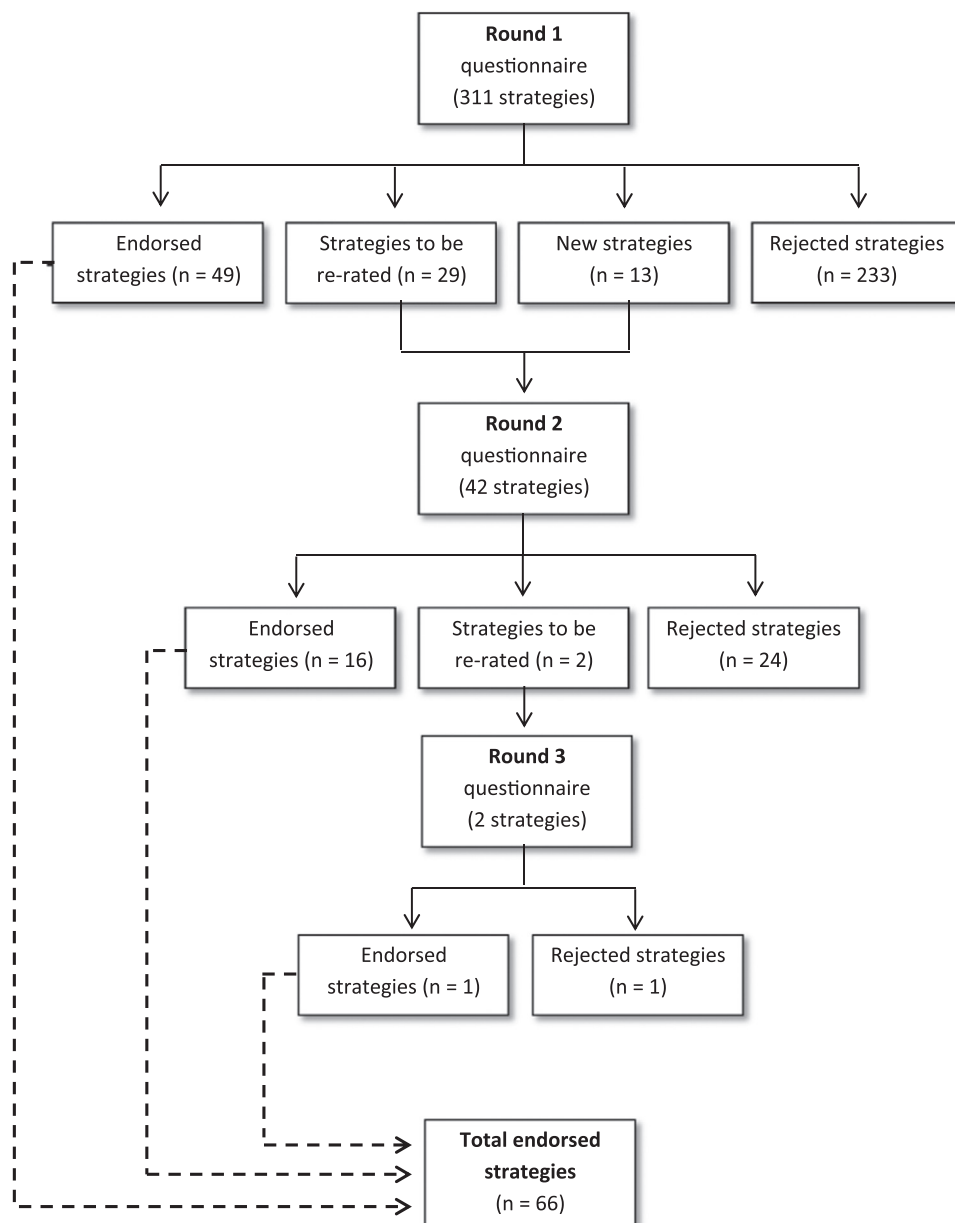
**Table 2**  
Strategies endorsed by at least 80% of both panels.

| Category                       | Self-help strategy  |
|--------------------------------|---|
| Analytic strategies            | <ul style="list-style-type: none"> <li>*Identify the specific situations or triggers that are making them stressed or anxious</li> <li>Look for patterns in when they feel anxious</li> <li>*Learn about the nature of anxiety so they understand it better</li> <li>*Understand the typical ways they react and behave when they become anxious</li> <li>Learn as much as possible about their anxiety and how it affects them</li> <li>*Keep a record of their anxiety levels and the activities/events that go with these</li> </ul>   |
| Behavioural strategies         | <ul style="list-style-type: none"> <li>*Relieve times of high anxiety by exercise or physical activity</li> <li>Engage in regular aerobic exercise (e.g., walk, jog)</li> <li>Enlist the help of a family member or friend to help them face anxiety-provoking situations</li> <li>Expose themselves to what makes them anxious in a systematic, gradual set of steps that they tackle one at a time</li> </ul>   |
| Cognitive change               | <ul style="list-style-type: none"> <li>*If a worry comes into their head, start by asking themselves whether it is a problem they can actually solve</li> <li>*When feeling anxious, ask themselves whether their thoughts right now are helping their anxiety or not</li> <li>*Ask themselves whether the typical ways they think are helpful to their anxiety or not</li> <li>Write a list of the ways that a thought helps or worsens their anxiety</li> <li>Identify the thoughts, beliefs, or images that are responsible for their anxiety (e.g., learn common types of thoughts associated with anxiety, record samples of self-talk during anxiety)</li> <li>Evaluate their anxious thoughts to see how realistic or accurate they are (e.g., by looking at the evidence, re-examining their actual likelihood, etc)</li> <li>After evaluating their anxious thoughts, developing more realistic or helpful thoughts to use as substitutes</li> <li>Challenge their anxious thoughts by asking "Can I identify any patterns of unhelpful thinking? " (e.g., mind-reading others, predicting the future)</li> <li>*Generate some helpful thoughts, and say these to themselves in anxious situations (e.g., "Other people have managed with my problems, so I can too", "I'll never be perfect, just like everyone else", "This is difficult, but I have got through it before")</li> <li>*Find ways to strengthen their new, helpful ways of thinking (e.g., by frequently re-reading lists of new thoughts, by practicing 'answering back' to anxious thoughts)</li> <li>If anxiety is caused by a problem situation, trying problem-solving: identify as many options as possible for solving the problem, consider the chances that each will help, choose the preferred option, then make a plan to implement it. If this doesn't work, go back to the list and try another option</li> </ul> |
| Complementary strategies       | Yoga  |
| Coping techniques              | <ul style="list-style-type: none"> <li>Develop a set of coping strategies (e.g., based on what has worked in the past or new ideas that could help)</li> <li>*Carry with them a list of things that may help if they become frightened or anxious (e.g., strategies, alternative thoughts)</li> </ul>   |
| Dietary habits                 | *Eat regular meals  |
| Interpersonal strategies       | <ul style="list-style-type: none"> <li>Learn assertiveness skills</li> <li>Learn to say "no" to some requests (e.g., a task that will overwhelm them)</li> <li>Improve their social skills (e.g., communication, handling criticism, etc)</li> <li>Learn how to resolve inter-personal conflicts as they come up</li> <li>*Seek support from friends, family, or others</li> <li>Avoid isolating themselves</li> <li>*Talk about their problems and feelings with a trusted person who will listen and understand</li> <li>Tell someone they trust about their problems and let that person know how they can help them</li> </ul>  |
| Lifestyle and other            | <ul style="list-style-type: none"> <li>*Use a self-help book based on CBT principles</li> <li>*Spend time in contact with nature</li> <li>*Spend more time outdoors</li> <li>Practice good sleep hygiene (habits that promote healthy sleep including things such as maintaining a regular sleep pattern, improving their sleeping environment, relaxing their mind, and avoiding drugs)</li> <li>Get enough sleep</li> <li>Try to maintain a regular sleep pattern</li> <li>Develop good time management skills to gain more time away from work and responsibilities (e.g., by delegating, by only working on less important tasks once the essential and important ones are completed)</li> </ul>  |
| Other psychological techniques | <ul style="list-style-type: none"> <li>Accept situations that cause anxiety that can't be changed</li> <li>Accept some amount of anxiety</li> <li>Find ways to let go of their need to control</li> <li>Practice acceptance by making themselves comfortable, taking a deep breath, letting it out slowly, letting their tummy muscles sag, giving way and trying to feel a willingness to accept</li> <li>Practice accepting uncertainty (e.g., by not responding to the thoughts and feelings that go with it, recognising it is part of life, bringing their attention to the present)</li> <li>Practice meditation</li> <li>Practice mindfulness regularly, not just as way of coping at a time of anxiety</li> <li>When anxious, try to use mindfulness: bring their attention to what they are experiencing at that moment, and non-judgementally observe their thoughts, feelings, and sensations</li> <li>When feeling anxious, visualise themselves successfully coping with the situation that they feel anxious about</li> </ul>   |
| Reducing physical tension      | <ul style="list-style-type: none"> <li>*Have regular leisure time (e.g., pursuing a hobby)</li> <li>Try to change their life towards a healthy balance of work and non-work activities</li> <li>Regularly spend time achieving relaxation, using a method that works for them (e.g., being near running water, listening to a relaxation CD, etc)</li> </ul>  |

**Table 2** (continued)

| Category                       | Self-help strategy   |
|--------------------------------|--|
| Substances                     | Practice progressive muscle relaxation<br>Have a proportion of each day, week, and year as 'down-time' or non-work time<br>If they have gone through a demanding time, give themselves some time to rest and have a break<br>Identify the sources/causes of their stress, and find ways to avoid, reduce, or address them  |
|                                | Avoid using alcohol to help them cope<br>Reduce or limit alcohol intake<br>Reduce or eliminate use of marijuana<br>Reduce or eliminate use of any illicit drugs (e.g., amphetamines)   |
| Ways of being and spirituality | Accept that there will be uncertainty and questions without immediate answers<br>If they are constantly dwelling on past negative experiences, try instead to consider what learning they can take from these experiences<br>Place value on 'being' and the process of doing things - not just on the product or accomplishment<br>Find ways to reduce perfectionism (e.g., don't magnify the importance of small errors, have realistic standards, etc)<br>Let go of the idea that their worth is determined by what they achieve or accomplish<br>Find the meaningful purposes and values in their life, and prioritise these in their actions |

Asterisks indicate strategies most likely to be both helpful and feasible to implement

**Fig. 1.** Overview of strategies endorsed, rejected, and re-rated in each round of the survey.

**Table 3**  
Strategies with large<sup>a</sup> differences in endorsement between panels<sup>b</sup>.

| Strategy   | Consumer Very likely or likely helpful (%) | Clinician/ researcher Very likely or likely helpful (%) | Difference |
|--|--|---|------------|
| After they have been in contact with a negative person, do an activity that helps neutralise this person's influence as soon as possible (e.g., enjoyable activity, talking with someone positive) | 88.2                                       | 21.9  | 66.3       |
| Ride out their anxiety until the feelings subside  | 45.1                                       | 96.9  | 51.8       |
| Try to avoid doing things that make them feel safer ('safety behaviours'), as these keep the anxiety going   | 37.3                                       | 87.5  | 50.2       |
| Ensure they get sufficient iron  | 86.3                                       | 37.5  | 48.8       |
| Massage  | 92.2                                       | 43.8  | 48.4       |
| Learn to release their feelings, instead of suppressing them   | 94.1                                       | 50.0  | 44.1       |
| Do not avoid or escape situations causing anxiety  | 56.9                                       | 100.0   | 43.1       |
| Use deep breathing when feeling anxious  | 80.4                                       | 37.5  | 42.9       |
| Try listening to some calming, soothing music  | 88.2                                       | 46.9  | 41.3       |
| Remember that anxiety is only a feeling and doesn't mean they are in danger  | 58.8                                       | 100.0   | 41.2       |
| Avoid foods that aggravate their anxiety or cause physical problems such as indigestion or allergic reactions  | 94.1                                       | 53.1  | 41.0       |
| Get involved in a volunteering role with others  | 90.2                                       | 50.0  | 40.2       |
| Get regular exposure to sunlight each day (e.g., 15–30 min)  | 96.1                                       | 56.3  | 39.8       |
| Ensure their diet has plenty of fruit and vegetables, including dark green leafy vegetables  | 82.4                                       | 43.8  | 38.6       |
| Try music to improve how they feel   | 86.3                                       | 50.0  | 36.3       |
| Stay hydrated  | 92.2                                       | 56.3  | 35.9       |
| Do something for someone else  | 88.2                                       | 53.1  | 35.1       |
| When feeling anxious, spend some time in an enjoyable activity (e.g., watch TV, listen to music)   | 94.1                                       | 59.4  | 34.7       |
| Avoid trying to control their anxiety by running away from, avoiding, or suppressing unwanted sensations, feelings, thoughts, worries, or images   | 52.9                                       | 87.5  | 34.6       |
| Take time to calm down their body after situations that stimulate them or create anxiety (e.g., look at something calming, go into a quiet room)   | 90.2                                       | 56.3  | 33.9       |
| Be in control of when they respond to emails, phone calls, and other communications  | 88.2                                       | 56.3  | 31.9       |
| Visualise breathing in something positive (e.g., energy, vitality) and breathing out (releasing) whatever they don't want (e.g., stress, anxiety)  | 84.3                                       | 53.1  | 31.2       |
| Perform small acts of kindness to others   | 90.2                                       | 59.4  | 30.8       |
| Divert their attention to something outside of them that has nothing to do with their anxiety (e.g., by listening to music, studying details of things around them, getting involved in a task)    | 86.3                                       | 56.3  | 30.0       |

<sup>a</sup> Strategies with at least a 30% difference in endorsement (Rosenthal, 1996).

<sup>b</sup> Strategies only listed if endorsed by 80% or more of either panel.

reduce physical tension, improving interpersonal skills and seeking social support, improving sleep, exercising, spending time outdoors or in contact with nature, stress- and time-management strategies, and reducing use of substances. Few strategies were endorsed that were related to diet, supplements, or complementary medicine. Some endorsed strategies form part of psychological treatments for anxiety (e.g. CBT, Acceptance and Commitment Therapy) and/or have some evidence of efficacy (e.g. yoga and meditation, Chen et al., 2012; Chugh-Gupta et al., 2013). However, some endorsed strategies have not been evaluated in controlled trials and reflect more general 'wellness' factors (e.g. spending time in nature, having regular leisure time, eating regular meals, balancing work and non-work activities).

Exposure is a key component of cognitive behaviour therapy treatment for anxiety disorders and although clinicians/researchers often endorsed exposure-related strategies, consumers did not always agree on the effectiveness of exposure as a self-help strategy. Some exposure-related strategies were not endorsed by consumers despite very high endorsement by clinicians/researchers (e.g., *Do not avoid or escape situations causing anxiety*; *Try to avoid doing things that make them feel safer ('safety behaviours'), as these keep the anxiety going*). The types of exposure strategies that were endorsed were perhaps actions that consumers recognised were more likely to be effective when carried out without the support of a professional (e.g., *Enlist the help of a family member or friend to help them face anxiety-provoking situations*; *Expose themselves to what makes them anxious in a systematic, gradual set of steps that they tackle one at a time*). Expert groups also differed in the types of strategies endorsed. Consumer experts

endorsed strategies from the Interpersonal, Reducing physical tension, Coping techniques and Dietary habits categories far more than the clinicians/researchers. The clinician/researcher group preferred strategies consistent with cognitive behavioural therapy techniques, as they tended to endorse more strategies in the Cognitive change, Other psychological techniques, and Behavioural strategies categories than the consumer panel.

It is also of note that there was significant overlap with some of the endorsed strategies found in the Delphi study on self-help for mild depression (Morgan and Jorm, 2009). Both studies endorsed strategies related to sleep, exercise, reducing substances, seeking social support, problem-solving techniques, relaxation techniques, mindfulness, and self-help books. Many strategies however did not overlap and the depression self-help strategies focussed more on behavioural activation techniques (e.g., staying active, doing enjoyable activities), and less on changing thinking patterns or ways of being such as accepting uncertainty. This is consistent with the conceptualisation of anxiety and depression as sharing common components in addition to specific, unique components (Mineka et al., 1998) and suggests that promotion of self-help strategies should vary depending on the targeted disorder.

There was a lack of systematic change in ratings for strategies that were re-rated by participants, suggesting that participants generally did not change their ratings to be more in alignment with other participants. Perhaps this was because it was too time-consuming to compare their response with the group response when re-rating strategies. Alternatively, the feedback about the group rating may have had little impact if participants already had firm opinions about a strategy's helpfulness which were unlikely

to change. Re-rated strategies already had a fairly high level of endorsement across panels and it is possible that there may have been more movement in ratings if strategies with large differences in ratings between panels were submitted for re-rating. Although group feedback is a key component of the Delphi method, it places additional burden on participants and there is little research to guide whether it does indeed lead to changes in ratings or an improvement in outcomes (Jorm, 2015).

This study used both consumer and professional experts as Delphi panellists. It could be argued that consumers are less appropriate to use as experts on effectiveness than on feasibility, because they may not be informed about the evidence on what works for anxiety. However, there is evidence from group decision making research that groups make better decisions when there is diversity of expertise than when the experts are homogeneous (Page, 2007), which has been used as an argument for including lived-experience expertise alongside professional expertise in Delphi studies (Jorm, 2015). As has been found in other Delphi studies, there was actually substantial agreement between professional and consumer panels (Jorm, 2015). Furthermore, we had the additional protection against including ineffective strategies of requiring a high level of endorsement from both professional and consumer panels, with neither alone being sufficient for inclusion.

Although many individuals and mental health organisations have produced information on what self-help strategies are helpful for mild anxiety, to our knowledge our list is the first to be formulated using a systematic, evidence-based approach. As consumers are central to self-management techniques, this research gave equal weight to the views and input from consumers with expertise related to anxiety problems, and therefore integrated scientific evidence, clinical experience and personal experience of anxiety problems. Strategies were included for rating by experts if they were clear, actionable, and had little overlap with other strategies, regardless of the research team's opinion of their validity. It is worth noting that the results do not preclude an individual finding a non-endorsed strategy helpful, just that it is unlikely it will be helpful for *most* people. Similarly, the results may not generalise to individuals from non-English-speaking non-Western countries, who may hold different views on what constitutes appropriate self-help. Determinations of clinician/researcher expertise were made on a case-by-case basis in the absence of established objective criteria for expertise. Furthermore, all consumer experts were from Australia and the majority were associated with beyondblue's blueVoices reference group, which may have influenced consumers' opinions and also affect generalisability of the findings. Findings may also not apply to other forms of mild anxiety related to panic attacks, specific phobias, obsessions/compulsions, or trauma, which were outside the scope of the study.

This research developed a set of self-help actions recommended by experts as likely to be effective for people experiencing anxiety symptoms. Although these self-help actions were identified using a rigorous process consistent with evidence-based medicine, the effectiveness of promoting them to members of the public has yet to be evaluated. One unknown factor is the degree of effect that can be expected for self-help strategies relative to therapist-enhancement of those strategies. Although the strategies can be performed without professional guidance (i.e., as true self-help strategies), some individuals may find that implementation is 'easier said than done'. This is naturally more likely for endorsed strategies that did not also meet consensus for feasibility, however even the strategies considered feasible may still attract this problem. For example, some individuals may face considerable barriers to the seemingly straightforward strategy of 'Seek support from friends, family, or others'. It is also recognised that some endorsed strategies can be difficult to engage in even with clinician support (e.g., identifying and challenging anxious thoughts). Clinicians using CBT are very familiar with

the diversity of client abilities to engage in such tasks, and a similar diversity of ability is likely in the population of people with sub-threshold anxiety. Thus, the challenge is to design an intervention or promotional campaign that will be able to lead to change in self-help behaviour, and that encompasses the range of ability and support available to individuals to implement the strategies.

#### 4.1. Conclusions

This research has contributed to the evidence-base on strategies that individuals can use to improve mild anxiety symptoms and reduce their risk of developing a full anxiety disorder. Strategies were endorsed by a variety of experts with differing expertise related to anxiety. The process of identifying strategies was rigorous and included the full spectrum of self-help approaches. Despite the different types of participant expertise, experts were able to agree to a significant extent on many strategies. This study identified a large set of self-help strategies endorsed as likely to be helpful for anxiety, as well as a smaller subset of strategies that are thought to be relatively easier to carry out by an individual. Study results have been translated into a self-help guide for anxiety, which is available for members of the public to download (La Trobe University, 2015). Promoting these strategies could empower people with mild anxiety to improve their own mental health and prevent more severe anxiety from developing. Promoting messages about effective self-help techniques needs to be done in conjunction with promotion of evidence-based treatment for people with clinical disorders (Gallo et al., 2013). This approach is also complementary to other more-intensive prevention interventions (e.g. web-based CBT, school-based prevention programs), as it is a simpler technique that may work by prompting or reminding people to take action and look after their mental health. These prevention and early intervention approaches are important, as treatment alone cannot avert the entire disease burden from anxiety disorders (Andrews et al., 2004).

#### Authors' contributions

AM and AJ designed the study and wrote the protocol. PC extracted the self-help strategies from the literature, conducted the systematic review, recruited participants, and collected the data. PC drafted the questionnaires and self-help guidelines with input from AM and AJ. PC and AM conducted the data analysis. AM wrote the first draft of the manuscript with input from PC and AJ. All authors have contributed to and approved the final manuscript.

#### Institutional board review

The study received ethics approval from La Trobe University's Human Ethics Committee (14-013).

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## Conflict of interests

All authors declare that they have no conflicts of interest.

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## Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at <http://dx.doi.org/10.1016/j.jad.2016.07.024>.

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